

### **REMARKS**

Claims 1-37 are currently pending, wherein claims 1 and 30 are independent. Favorable reconsideration is respectfully requested in view of the remarks presented herein below.

At the outset, Applicant would like to thank the Examiner for the courtesy shown to Applicant's Representative during the Interview conducted on February 25, 2009. The Examiner's Interview Summary (paper no. 20090225) is an accurate summary of the interview.

In paragraph 4 of the Office action ("Action"), the Examiner rejects claims 1-37 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,671,219 to Jensen et al. ("Jensen"). Applicant respectfully traverses this rejection.

In order to support a rejection under 35 U.S.C. § 103, the Examiner must establish a *prima facie* case of obviousness. To establish a *prima facie* case of obviousness three criteria must be met. First, there must be some motivation to combine the cited references. Second, there must be a reasonable expectation of success. Finally, the combination must teach each and every claimed element. In the present case, claims 1-37 are patentable over Jensen for at least the reason that Jensen fails to disclose each and every claimed element as discussed below.

Independent claim 1 defines a method of test receiving alternative reception frequencies in a receiver receiving a continuous flow of information of a unidirectional digital broadcasting transmission at a first reception frequent. The continuous flow of information includes specific user terminating information transmitted in clusters. The method includes, *inter alia*, predicting an interruption in the form of a natural break in the transmitted flow of specific user terminating information, based on an indication of the end of a cluster of the specific user terminating information, wherein the indication of the end of the cluster of specific user terminating information is part of the specific user terminating information; evaluating the interruption to determine whether it will be of an adequate length of time, and generating a positive response if it is evaluated that the interruption will be of an adequate length of time; changing the reception frequency of the receiver from the first reception frequency to an alternative reception frequency if the evaluation has generated a positive response; test receiving the alternative reception frequency; and enabling reception and extraction of the flow of specific user terminating information.

Jensen discloses a method in which user stations communicate with one or more base stations to place and receive telephone calls, in which the user stations are provided a secure voice or data link and have the ability to handoff calls between base stations while such calls are in progress. Each base station has a set of air channels to which it transmits in sequence. The air channels supported by each base station are called that base station's polling loop. A user station receives general polling information on a unoccupied air channel, transmits responsive information to the base station, and awaits acknowledgment from the base station. Each base station may therefore simultaneously maintain communication with as many user stations as there are air channels in its polling loop. Furthermore, when a user station determines that a handoff is appropriate, the user station acquires an air channel on the new or terminal base station and notifies the base station controller coupled to the current base station to switch the incoming phone line from the current base station to the new base station. However, nowhere in Jensen is there any disclosure or suggestion of a method of test receiving alternative reception frequencies as claimed. More specifically, Jensen fails to disclose or suggestion (1) a receiver receiving a continuous flow of information; (2) predicting an interruption in the form of a natural break in the transmitted flow of specific user terminating information based on an indication of the end of a cluster of the specific user terminating information; (3) where the indication of the end of the cluster is part of the specific user terminating information; and (4) evaluating the interruption to determine whether it will be of an adequate length of time as recited in claim 1.

In rejecting claim 1 the Examiner asserts that Jensen discloses "predicting an interruption in the form of a natural break " as recited in claim 1 in as much as Jensen discloses monitoring packets of information retrieved by the receiver and switching to available channels (stored in advance) upon interruption due to various natural interruptions, such as low signal quality, severe signal blockage, of the current channel in use. Although, as pointed out by the Examiner, Jensen discloses monitoring received packets and switching or initiating a handoff when the received signal quality is below a predetermined threshold, the Examiner's conclusion/assertion that this handoff of Jensen is equivalent to "predicting an interruption in the form a natural break...based on an indication of the end of a cluster..." as claimed is unfounded.

First, while low signal quality, signal blockage, and/or signal interference may be consisted natural breaks in the *received* signal flow, they are NOT natural breaks in the *transmitted* flow of specific user terminating information as claimed. It is commonly understood that the action of “transmitting” (in the context of radio communication) is performed by a “transmitter”. A transmitter is further commonly understood to be an electronic device which, usually with the aid of an antenna, propagates an electromagnetic signal such as radio, television, or other telecommunications. A transmitter usually comprises a power supply, an oscillator, a modulator, and amplifiers for radio frequency (RF). The modulator is the device which modulates the signal information onto the carrier frequency, which is then broadcast. Sometimes also the antenna connected to the transmitter is consider to take part in the action of “transmitting” (c.f. the term “transmitting antenna”). It is quite clear that the act of “transmitting” is completed at the point where the signal leaves the antenna connected to the transmitter. Thus the natural breaks referred to in Jensen are natural breaks in the *received* signal, not the *transmitted* signal as claimed.

Second, even if the interruptions of Jensen where considered to be part of the *transmitted* flow, nowhere in Jensen is there any disclosure or suggestion of predicting the interruptions based on an indication of the end of a cluster of the specific user terminating information, where the indication of the end of the cluster is *part of* the specific user terminating information as claimed. The Examiner asserts that the packets of Jensen are equivalent to the claimed cluster and the link quality dropping below a measurement threshold is equivalent to the claimed indication of the end. However even if the packets of Jensen where clusters, in the claimed invention, the “indication of the end” is part of the “specific user terminating information” (i.e. is created by the transmitting side and carried as explicit information in the transmitted signal), whereas according to the Examiner’s interpretation of Jensen the “indication of the end” corresponds to when “the overall link quality drops below a measured threshold”. In the previous case the “indication of the end” consists of information intentionally transferred from a transmitting side to a receiving side. In the latter case it consists of circumstances during the signal transfer and reception that is not under control of the transmitting side and can not be

consider to be “desired by” the receiver. Accordingly, the overall link quality is not part of the specific user terminating information as claimed.

Furthermore, even if the Examiner were to interpret the breaks between the transmitted packets of Jensen as reading on the claimed natural breaks, Jensen would still fail to render claim 1 unpatentable because Jensen fails to disclose “predicting an interruption...based on an indication of the end of cluster” as claimed. This path of argumentation is understood to rely on the interpretation that the time slotted structure of the data flow in Jensen corresponds to the “intended breaks in the transmitted flow of specific user terminating information” described in the present invention, and also that there is control signaling described in Jensen that corresponds to the “indication of the end” described in the present invention.

According to Jensen, the packetized structure of the transmission consists of a predetermined, cyclic time slot structure, the details of which is negotiated between “base stations” and “user stations” in accordance with a certain “link-establishing” procedure (col. 12 line 22 – col. 13 line 11) characterized by the mutual (bi-directional) exchange of control messages. This negotiation results in the establishment of a communication link on a designated air channel (col. 13 lines 7-9). Arguably this implicitly means that the “user station” is able to predict future “intended breaks in the transmitted flow of specific user terminating information”.

However the method of doing this differs from the limitations of claim 1 (and 30) on a number of important points:

1) In Jensen, in order to identify an “intended break in the transmitted flow of specific user terminating information”, the receiver relies on the knowledge of a deterministic, cyclic communication pattern that is defined by control signalling during the bi-directional link-establishing procedure, not “based on an indication of the end of a cluster of the specific user terminating information, where the indication of the end of the cluster of the specific user terminating information is part of the specific user terminating information”

2) Jensen describes a bi-directional one-to-one communication system. The link-establishing procedure described in Jensen and which constitutes the basis for the prediction mechanism is therefore not applicable on the present invention which is able to operate in a

uni-directional system, one-to-one or one-to-many (which is explicitly expressed by the wording “unidirectional digital broadcasting transmission” in the preamble of claim 1). In this context it can be noted that the Examiner has provided arguments regarding the applicability of Jensen also in a unidirectional broadcasting system. However, these arguments are considered to be invalid. The Examiner makes references to Jensen’s plurality of examples of network architectures in which Jensen’s inventions can be implemented. However, none of these examples include pure unidirectional broadcasting systems. Thus, although making references to broadcast and point-to-multipoint applications, nowhere in Jensen is suggested how to implement the invention without a return channel (i.e. possibility to send messages from the user station to the base station). On the contrary, in Jensen the hand shaking (two-way) procedure is a fundamental component of communication establishment.

3) According to the present invention, the user station (receiver) receives a continuous flow of information. Jensen, on the other hand, discloses a system where user station and base station transmissions are alternating on the same air channel (col 2, lines 6-14), meaning that there is no continuous transmission for the user station (receiver) to receive. Thus, Jensen does not meet the limitation of “receiving a continuous flow of information” of claim 1 of the present invention.

Finally, nowhere in Jensen is there any disclosure or suggestion of evaluating the interruption to determine whether it will be of an adequate length of time. To the contrary, Jensen at best discloses that the interruptions result in a signal level below a predetermined threshold. Therefore, Jensen merely discloses evaluating the overall link quality, not the length of time of the interruption as claimed.

For at least those reasons presented above, claim 1 is patentable over Jensen for at least the reason that Jensen fails to disclose or suggest each and every claimed element.

Independent claim 30 defines an receiver including, *inter alia*, a digital signal processing unit configured to carry out the method of claim 1. Therefore, claim 30 is patentable over Jensen for at least those reasons presented above with respect to claim 1.

Claims 2-29 and 31-37 variously depend from independent claims 1 and 30. Therefore, claims 2-29 and 31-37 are patentable over Jensen for at least those reasons presented above with respect to claims 1 and 30. Reconsideration and withdrawal of the rejection of claims 1-37 under 35 U.S.C. § 103 is respectfully requested.

The application is in condition for allowance. Notice of same is earnestly solicited. Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Penny Caudle Reg. No. 46,607 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

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